

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

36 - 42. (CANCELED)

43. (NEW) A method for preparing a synthetic promoter which comprises the steps of:

- a) comparing the sequence of a template promoter with known nucleic acid sequences;
- b) selecting segments of said known nucleic acid sequences similar to segments of the template promoter sequence;
- c) aligning the selected segments in linear order on the bases of the template promoter to derive a first synthetic promoter;
- d) constructing a first synthetic promoter; and
- e) testing the first synthetic promoter for activity.

44. (NEW) The method of claim 43, which further comprises the steps of:

- f) modifying the sequence of the first synthetic promoter which does not have maintained or improved activity compared to the template promoter to produce a second synthetic promoter; and
- g) testing the synthetic promoter for activity.

45. (NEW) The method of claim 44, wherein steps (f) and (g) are repeated one or more times until a synthetic promoter is produced which has maintained or improved activity compared to the template promoter.

46. (NEW) A method for preparing a synthetic promoter comprising:

- a) using a known promoter with a known sequence as a template promoter;
- b) comparing the sequence of the template promoter with other known sequences;
- c) selecting segments from the known sequences which are similar to the sequence of the template promoter;
- d) identifying subsequences in the sequence of the template promoter which align with the selected segments from the known sequences;
- e) replacing the identified subsequences in the sequence of the template promoter with the selected segments from the known sequences thereby preparing a first synthetic promoter; and
- f) testing the first synthetic promoter for transcriptional activity.

47. (NEW) The method of claim 46 further comprising:

- g) comparing promoter activity of the template promoter with the promoter activity of the first synthetic promoter;
- h) modifying the sequence of the first synthetic promoter by substituting one or more bases in the first synthetic promoter sequence to produce a second synthetic promoter with a second synthetic promoter sequence; and
- i) testing the second synthetic promoter for transcriptional activity.

48. (NEW) The method of claim 47 further comprising:

- j) comparing the promoter activity of the template promoter with promoter activity of the first and second synthetic promoter activities; and
- k) repeating steps (h) through (j) until a synthetic promoter is produced which has promoter activity which is the same activity or has increased activity when compared to the template promoter activity.